

Contextual Innovation and R&D Strategy
An Analysis of the Competitive Advantage of Social Media Companies
in China

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Wenbo Chen

Bachelor of Arts

The Ohio State University

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Thesis Committee:

Professor Bruce W. Bellner (Chair)

Department of Economics, College of Arts and Sciences

Professor Mona Makhija

Department of Management and Human Resources, Fisher College of Business

Professor Oded Shenkar

Department of Management and Human Resources, Fisher College of Business

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Glossary of Key Terms and Concepts

Business Model Innovation: Invention of new products or services by reorganizing or recombining existing information and technology.

Competitive Advantage: higher profit earnings relative to other competitors in the same industry.

Context: the convergence of globalization, localization and social condition; the particular environment the company is in.

Contextual Innovation: business model innovation that adapts to the context of the industry.

Globalization: the economic global expansion that allows the access to new information and technology.

Liability of Aging: old companies are more likely to fail.

Liability of Newness: new companies are more likely to fail.

Localization: the distinctive characteristics of domestic market.

Market-focus R&D: the primary purpose of R&D is to research the market and enhance customers' user experience.

R&D Strategy: the decision making process of how to organize and use R&D.

Red Queen Effect: both innovators and imitators stay at the same position of the industry when they both invest same degree on technology.

Social Condition: the constraints and opportunities of a society.

Sustainable Competitive Advantage: higher profit earnings relative to other competitors in the same industry for a sustainable period of time.

Technology-focus R&D: the primary purpose of R&D is to develop new technology that is beyond the current needs of customers.

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INTRODUCTION

Economist Joseph Schumpeter once concludes that innovation is the fundamental driving force of the development of modern capitalism and the types of innovation include creation of new commodity, new technology, new source of supply, and new type of organization (Schumpeter, 1994). In this thesis, the research focuses on the last one, the creation of new types of organization, particularly the contextual innovation. Contextual innovation is defined as the context based business model innovation that makes the company gain and sustain competitive advantage. Business model innovation is defined as the invention of new products or services by reorganizing or recombining existing information and technology. Competitive advantage is defined as the higher profit earnings of the company relative to other companies in the same industry. In other words, contextual innovation is the reorganization or recombination of existing information and technology that adapts to the context of the industry and makes the company have higher profit earnings relative to other companies in the industry.

Business model innovation is a fundamentally different process from technological innovation. As mentioned above, it is a process of creating a new way to organize or combine existing information and technology. A classic example is Apple's introduction of iPod along with the iTunes store, which revolutionizes the way of how industry organizes. The combination of iPod with iTunes is the creation of a new business model that reorganizes the hardware, software and service that based on existing technology (Johnson, Christensen, & Kagermann, 2008). Broadly, Wal-Mart, Dell and South West Airlines, are all considered as the companies that create a new and better business model in a specific industry and demonstrate that a new business model can beat

a new idea or new technology (Chesbrough, 2007).

However, reinventing business model is relative difficult and rare in the United States. According to a survey from American Management Association, less than 10% of investment in innovation is focused on developing new business model and very few major innovations in the past decade are related to business model (Johnson et al., 2008). The incentive to invest on developing new business model is low in the United States and very few business model innovations emerged.

On the contrary, from a global perspective, the innovation of business model is prevalent around the rest of the world and innovation on business model becomes a core strategy for companies to gain and sustain competitive advantage. In this thesis, the research subjects are social media companies in China and the United States. The research focuses on comparing the R&D strategy adopted by these two groups of companies and how the strategy affects their performance in the industry. I choose these companies because social media products involve both the technological innovation and business model innovation, and generally Chinese companies focus on business model innovation while U.S. companies focus on technological innovation.

I hypothesize that the incentive for the business model innovation is the context of the industry. The business model innovation should adapt to the context, which is the general environment the company is in. This thesis focuses on the analysis of three major elements of the context: globalization, which allows the access to new information and technology, localization, the distinctive characteristics of domestic market, social condition, the social problems and opportunities for the company. The companies that achieve the business model innovation because of a deep understanding of current

context that allows them to capture the opportunity in the industry.

The deep understanding of the context is achieved by a successful market-focus R&D (Research and Development) strategy. R&D strategy is defined as the decision making process of how to organize and use R&D (Pisano, 2012). Market-focus R&D strategy is that the primary purpose of R&D should be used to research the market and enhance customers' user experience. I propose a company that uses a market-focus R&D strategy can generate higher returns from its R&D investment and spend fewer on its non-production cost. Two major results of adopting a market-focus R&D strategy achieve this: the business model innovation and more effective marketing strategy. Business model innovation generates higher returns for the company by creating more values from its new products that adapts to the taste of consumers. A more effective marketing strategy reduces the non-production cost through the savings on selling and advertising cost.

Compared with Chinese companies, U.S. companies use a technology-focus R&D strategy. Technology-focus R&D is that the primary purpose of R&D is to develop new technology that is beyond the current needs of customers and creates a completely new market. Technology-focus R&D strategy is a process that aims to create a new market by inventing new technology.

The research in this thesis includes the theoretical framework, the analysis of the general strategy adopted by Chinese social media companies, the case studies of five Chinese social media companies (Alibaba, Baidu, Renren, Sina and Tencent) and using linear regression to test the hypotheses.

LITERATURE REVIEW

Current perception of innovation disproportionately focuses on the technological innovation. The common sense is that heavy investment on technology-focus R&D directly contributes to technological innovation and makes the company gain and sustain competitive advantage. Technological innovation seems like the panacea that can solve the problems of all kinds of organization, regardless the heterogeneity among them. Apparently, the fetishism towards the exploration of new technology is prevalent. To some extent, the exploitation of existing information and innovation on organizational structure are paid much less attention than the invention of new technology.

However, there are different types of innovation and the relationship among them is complex. Study shows administrative innovation leads to changes in social structure, which leads to the changes in technical system that stimulates the technological innovation (Damanpour, Szabat, & Evan, 1989). Furthermore, under some certain circumstances, administrative innovation has a much more enduring effect than the technical innovation does. Without administrative innovation, some technological innovation probably can never occur.

According to James March's organizational learning theory, organizational learning is an adaptive process that based on the trade off between the exploration of new possibility, which includes the invention of new technology, and exploitation of current certainty, which includes the process of selection, implementation and execution of existing information (March, 1991). Exploration possesses high uncertainty, is time-consuming and deviates from existing logics of action. Consequently, the adaptive process of an organization automatically selects the process of exploitation, which leads

to a cumulative advantage.

Nowadays, the role of innovation on organizational structure becomes even more important and solves many social problems. For instance, according to Atul Gawande, the current inefficiency in U.S. health care delivery lies on the lack of the coordination of medical doctors that cherish status, autonomy and expertise and one effective way to reduce the gigantic cost of health care is to find a new way to organize these highly specialized doctors to make the health care delivery more effective (Morse, 2010). A classic example of constant innovation of organizational structure is the administration of a university. The new way to organize the course content, the new way to organize teaching, and new way of operating university budget are all innovations that lead to the higher quality and wider access of higher education.

The contextual innovation is a type of innovation of organizational structure. It explains how the context drives the business model innovation. Current research on business model innovation focuses on defining the process of business model innovation and how to implement strategy rather than explaining the complexity of how it emerges and works. For instance, researchers from Harvard Business School conclude that the constituents of business model innovation include customer value position, profit formula, key resources and key processes (Johnson et al., 2008).

The process of business model innovation is narrowly defined as the process of handling internal resources that solely based on the company's capability. Apparently, current research usually ignores the complex context that leads to the business model innovation. The study of the general strategy on how the company implements business model innovation focuses more on building the internal capabilities of the company

rather than discovering the external environment of the industry. This thesis tries to use a balanced approach to analyze how business model innovation emerges and works in a specific context and how it can affect the performance of the company. It tries to demonstrate business model innovation is an incremental and adaptive process that occurs in a specific environment.

Contextual innovation also can explain why business model innovation is a rare phenomenon in the business practice. Current researches explain the difficulty of business model innovation from three dimensions: the competency of the company, the behavior of the customers and the changes in business environment (Parmar, Mackenzie, Cohn, & Gann, 2014). These three factors are intertwined with each other but rarely are studied comprehensively. For example, a competent company can reshape the structure of the industry and change the business environment of the industry. The changes in the business environment can also change the behavior of the consumers.

The context of an industry not only contains all these three factors but also demonstrates how these factors interact with each other and the factors that are beyond these three factors, such as demography of the consumer, the cultural distance between foreign market and domestic market and the institutional environment of the market. The difficulty to implement business model innovation is due to the difficulty to perceive and capture the opportunity in a complex and dynamic context and the difficulty to understand different logics of success in different context. In some cases, a profitable business model in one context may not be profitable in another context. Some companies are successful on domestic market while fail on the foreign market. Some companies are successful on certain industries but fail when they enter to a new industry. Companies

gain competitive advantage by the capability of capturing the opportunity and understanding of the logics of success.

This thesis also draws the interest on the research of innovation in China. Current researches raise the question on whether China will become an innovation center in the future. These researches focus the increasing R&D spending and the establishing of new research institutions in China (Haour & Jolly, 2014). It also narrows the concept of innovation to the technological innovation. For instance, according to Harvard Business Review, the lack of technological innovation in China is due to the constraints from a single-party political system, an exam-oriented education system and the economic reality that pioneering technological innovation is not profitable in China (Abrami, Kirby, & McFarlan, 2014).

However, the research ignores that constraints from the context also creates incentive for business model innovation and the process of innovation is not just the mechanical process of increasing spending on R&D and building more research institutions. In this thesis, constraints in the context are regarded as the incentive for business model innovation. The R&D investment is studied also qualitatively instead of solely quantitatively.

THEORETICAL FRAMEWORK

In this thesis, competitive advantage is defined as the superior financial performance of the company in the industry. If a company can make more profit, it gains competitive advantage. Generally, company gains competitive advantage by creating more value and reducing the cost. In the process of contextual innovation, companies are

driven by the context to use a market-focus R&D strategy, which creates more value by inventing a new business model and reduces the non-production cost by a more effective marketing strategy. R&D has two major functions: generates new information and enhances company's capability to assimilate and exploit existing information (Cohen & Levinthal, 1989). The function of market-focus R&D is to research the existing knowledge of the market and enhancing customers' user experience by business model innovation, which creates new products and services by reorganizing or recombining existing information and technology. The function of technology-focus R&D is to develop new technology that beyond the current needs of customers.

Overall, the company invests more on R&D tends to gain more competitive advantage. However, in contextual innovation, the R&D has a market-focus. The primary purpose of R&D is to get a deep understanding of the context of the industry and create strategy that improves existing business model to adapt to the context. The primary functions of R&D in contextual innovation are to assimilate and exploit existing knowledge in the environment and develop the company's learning and absorptive capability (Cohen & Levinthal, 1989). Companies gain competitive advantage by reducing the non-production cost by a more effective marketing strategy and creating more value by new business models. On the contrary, most social media companies in the United States gain competitive advantage by a technology-focus R&D strategy, of which the purpose is to achieve technological innovation that creates a completely new market.



To further investigate the effect of R&D investment on the company's performance, I refer to the age dependence theory from organizational ecology and include the age of the company as a variable that determines the competitive advantage of the company, as the experience of the company can also affect the company's performance (Carroll, 1984).

The correlation between the company's age and the competitive advantage of the company is complex. On the one hand, the company that exists in the industry longer probably has a better understanding of the market. The survival in a highly competitive industry reflects that the company's strong competitiveness. It indicates the company probably has a larger user-base and a better existing business model. Consumers view the company as a brand and are loyal to the company. Also, the previous R&D investment has a cumulative effect on the company. The newer companies may suffer from liability of newness, which means new companies are more likely to fail (Freeman, Carroll, & Hannan, 1983). In this case, the company's age is the substitute of the investment on R&D that should be positively correlated with the company's competitive advantage.

On the other hand, more years of experience in the industry makes the company suffer from structure constraints that create organizational inertia, corporate politics and internal bureaucracies (Luo, Sun, & Lu Wang, 2011). The company may become self-referential and lack the innovative capability. The old companies may suffer from the liability of aging, which means old companies are more likely to fail (Sørensen & Stuart, 2000). In this case, the company's age are negatively correlated with the company's competitive advantage. In the hypothesis testing part, I will regress the variables such as the company's R&D investment, non-production cost and age to find how the competitive advantage of a company is determined.

GENERAL STRATEGIES OF CHINESE INTERNET COMPANIES

One important elements of current context is globalization. In the global market, Chinese social media companies act as imitators of U.S. social media companies, especially on technological side. Due to globalization, the information and knowledge are unprecedentedly accessible. On the one hand, acting as an imitator largely reduces the cost of the company's investment on the technology-focus R&D. On the other hand, unlike the United States, China is a transitional economy. The uncertainty of economic policy and lack of law enforcement of intellectual property rights further encourage Chinese companies invest much less on technology-focus R&D to reduce the risk (Breznitz & Murphree, 2011).

However, the process of successful imitation is complex and difficult. The successful imitation requires the imitator has a deep understanding of the business model of the innovator and the capability to improve the existing business model (Shenkar, 2010). The difficulty to capture the logics of the innovator's successful business model and the difficulty to improve the business model require R&D investment and set the barrier to entry for other potential imitators.

At the same time, a highly competitive and constantly changeable environment requires both the innovator and imitator to learn rapidly. To gain and sustain competitive advantage, the company should have a better understanding on the logics of competition in the context of the industry than its rivals do (Barnett, 2008). Since the context of the industry constantly changes, the logics of competition also change constantly. The dynamic context of the industry with the risk of investing on technology-focus R&D requires company to learn the context of the industry comprehensively, which can be

achieved by more investment on market-focus R&D. The process of imitation is a process of learning and catching up, which creates the red queen effect.

Red queen effect originates from Lewis Carroll's *Through the Looking-Glass and What Alice Found There*. The Red Queen told Alice in order to stay at the same place she had to run as fast as she could (Breznitz & Murphree, 2011). Red queen effect is applied in biology and used to explain the coevolution of species. The coevolution of species is an arm race between prey and predator (Robson, 2005). For instance, when a tiger wants to catch a rabbit, both of them find running faster is advantageous. However, if the tiger and the rabbit increase their speed at a same degree, the distance between them is kept constant.

From an economic perspective, the relationship between the prey and predator is the relationship between an innovative company and an imitative company (Robson, 2005). The advantage of innovator can never be permanent because imitator catches up. Innovation with the red queen effect seems can only create a transient competitive advantage. That is the reason why current researches focus on how to escape the red queen effect and gain a sustainable competitive advantage (Voelpel, Leibold, Tekie, & Krogh, 2005).

However, Chinese social media companies benefit from the red queen effect that happens on global market. They choose to be an imitator strategically. In the arm race of technological innovation with U.S. social media companies, Chinese social media companies act as potential threats of U.S. social media companies but intentionally keep a constant distance with U.S. social media companies. The potential threat makes U.S. companies invest more on technology-focus R&D to sustain their competitive advantage

on technological side, but also allows Chinese social media companies the access to the latest technology.

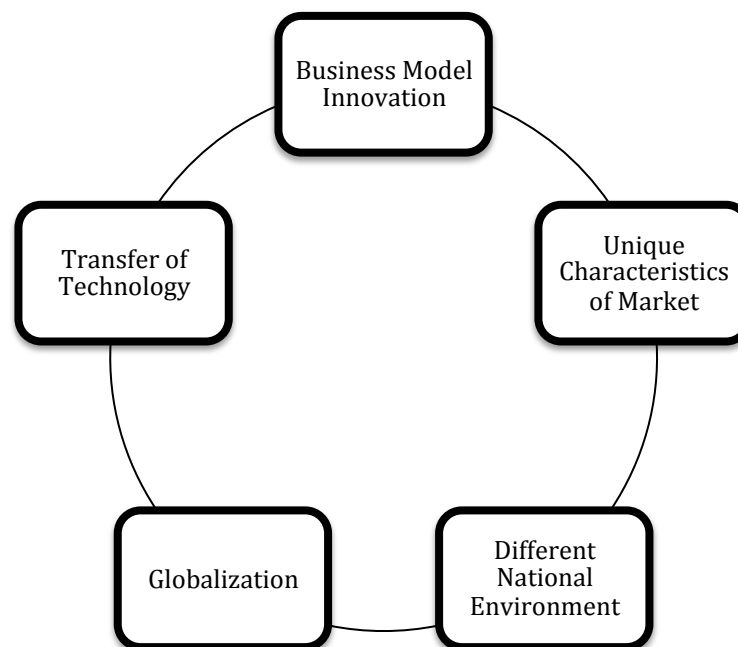
Furthermore, strategically not investing too much on inventing new technology also makes Chinese social media companies reduce the cost on investing in technology-focus R&D. The extra investment on market-focus R&D leads to more effective marketing strategy that reduces the non-production cost, which includes selling, general and administrative expense.

The process of imitation on technology creates an ideal starting point for Chinese social media companies. They gain the access to the knowledge of the latest technology and adopt existing successful business models. It both reduces the cost and risk. Although they do not gain the competitive advantage in the global market, they have gained a competitive advantage when they enter the local market. The red queen effect makes both imitator and innovator at a relative same place on one dimension, but the competition and innovation occur on several dimensions and contexts. Although globalization makes the information and knowledge accessible, the difference between the global market and local market still exists on several aspects.

The different environment of each country is also an important element of the context, which makes globalization incomplete. From an ecocultural perspective, the national cultures create an intermediate degree of globalization and companies should use a contextual framework to implement strategy in different countries (Ronen & Shenkar, 2013). The difference lies on three major dimensions of the social media industry: the difference in language, financial institutions and purchasing power (Ghemawat, 2001). These differences also make companies use different types of R&D strategy. According

to a global survey from McKinsey, two-thirds of the respondent companies acknowledged that their R&D is focused either on the global market or on the local innovation in emerging economies (Barrett, Peet, & Musso, 2011).

A highly localized Chinese market with a large scale of consumers enables Chinese social media companies use an adaptive approach to capture the profit. The constraints from the local market set the barrier to entry for other maladaptive companies. The distinctive environment of the local market and the intensive competition among technological homogenous companies create the unique business model and contextual innovation.



CASE STUDIES

In the case studies, I select five major Chinese social media companies: Alibaba, Baidu, Renren, Sina and Tencent. I analyze the context of the industry and the R&D strategy of these companies and compare them with their U.S. counterparts by evaluating

the business model innovation and marketing strategy of these companies. I use the archival research method.

Company Information

| Company | Alibaba | Baidu | Renren | Sina | Tencent |
|---------------------------|---|---|-----------------|---|--|
| Founded | 1999 | 2000 | 2005 | 1998 | 1998 |
| Major Service | E-commerce | Search Engine, Social Media | Social Media | Web Portal, Social Media | Instant Messaging, Social Media |
| Major Products | Taobao, Alipay | Search, Encyclopedia, Poster Forum | Renren Platform | Sina Weibo | QQ, Wechat |
| Business Model Innovation | Combining e-commerce with Internet finance and social media | Combining search engine with social media | N/A | Combining Web Portal with social media | Combining value added online game service and Internet finance with social media |
| Marketing Strategy | Advertising through posting message on BBS, providing loans for small business, boycotting fake goods | Content Marketing | N/A | Recruiting celebrities to use its product | Connecting QQ account with Wechat account |

ALIBABA

Alibaba is an Internet Company whose major service is e-commerce. The context of Chinese ecommerce market is it has a gigantic number of continually growing sellers and buyers but with very limited purchasing power. The e-commerce market also lacks an effective payment system to process online transaction. Unlike the United States,

China lacks the norm and laws to support online transaction (Barnett, Luo, & Feng, 2010). In 2002, according to a survey from Chinese Internet Information Network Center, 13.9% of Chinese Internet users experience fraud on online transaction (Barnett et al., 2010). It also lacks the technological and financial infrastructure to facilitate online transaction (Barnett et al., 2010). Very few people in China own credit cards and credit card service varies among different provinces. In this context, Alibaba has two problems to solve: how to earn money from this large amount of sellers and users with limited purchasing power and how to make online transactions work without an effective and trustworthy payment system.

Alibaba invests heavily on the market-focus R&D as an e-commerce company to find what customers need. According to Chinese Champion, a survey of patents and intellectual property rights, Alibaba began its R&D activities since 2005 and established Alibaba Group R&D Institute in 2008 to further meet customers' needs. In 2009, Alibaba filed nearly 350 patents and utility model application all over the world. The investment on market-focus R&D leads to business model innovation and a more effective marketing strategy.

Alibaba has a unique business model, a mix model of Amazon, eBay, PayPal and Google (Osawa, 2014). Alibaba's Taobao, the company's main website, is a middleman between buyers and sellers and making profits from selling advertisement. Unlike Amazon sells products by itself, Taobao never sells products by its own. Unlike eBay whose major profits from the commission fee, Taobao is a complete free service. This new business model adapts to the context that there is a large amount of buyers and sellers but with very limited purchasing power in Chinese e-commerce market.

A free service business model can attract millions of sellers and to stand out they must pay for the advertisement. Now, there are 7 million sellers on Taobao sell 760 million products (Osawa, 2014). To some extent, Taobao also functions like Google. It first serves as a search engine that specialized on e-commerce. Buyers directly find information from Taobao's search function and then directly go to the online stores of the sellers from Taobao. Buyers in the United States usually search the products from Google and then go to Amazon and eBay, so the profit from advertisement belongs to Google. Taobao uses vertical integration to reorganize the value chain. The free and mixed business model of Taobao is an adaptation to the context of Chinese local market.

To solve the problem of the weakness of online payment system, Alibaba incorporated Alipay, a payment system has escrow functions that can withhold the payment until goods have been received, into its existing business model. Alibaba also purchases insurance for users of Alipay to protect them from financial loss. It turns out Alipay is a huge success. Currently, Alipay is world's largest payment system by volume of transaction (An internet with chinese characteristics.2011).

It becomes a perfect substitute for the weak banking system and provides payment service of online transaction for other Chinese websites. It functions just like the credit card. Alipay is beyond the original plan of Alibaba, making the company not only an e-commerce company but also a company can banking something that is unbanked. It is almost an online bank and credit card company. It provides a safe and convenient payment system that facilitates online transaction when Chinese banking and credit card systems are inefficient.

To build the trust between sellers and buyers, Alibaba incorporated

communication device and social media component into its existing business model. It launches Aliwangwang, a tool that provides direct communication between sellers and buyers. Buyers can find whether a seller is online or not from Taobao and uses Aliwangwang to directly communicate with the sellers. Unlike Alibaba, eBay China, Alibaba's main competitor, uses e-mail and Skype facilitate the communication, though very few Chinese use them. In a Chinese context, the lack of law enforcement makes consumers really appreciate building the trust with buyers before the transaction take place and a direct communication tool is crucial for e-commerce (Ou & Davison, 2009). Alibaba also incorporates instant messaging, online forum, and social media functions in its websites to create a sense of community among buyers and sellers (Barnett et al., 2010).

The market-focus R&D also helps Alibaba comes out more effective marketing strategy that reduces the non-production cost. When Chinese e-commerce market began to emerge, Taobao's major competitor was eBay China. EBay China uses a standardized global strategy while Alibaba uses a highly localized and adaptive strategy.

The marketing strategy of eBay China was to put advertisement on the major Chinese websites and made these websites never sell advertisement to eBay's competitor (Barnett et al., 2010). On the contrary, Alibaba used a much more effective and cheaper strategy. It put thousands of messages on bulletin board service (BBS) to introduce Taobao to Chinese Internet users (Barnett et al., 2010). Alibaba's marketing strategy is highly successful. As the average age of Chinese Internet users is much younger than that of their U.S. counterpart, Internet in the Chinese context is not primarily for finding information, but for entertainment. BBS is the place where Chinese Internet users highly

concentrate. This strategy is effective and cheap. It demonstrates Alibaba's deep understanding of Chinese local market by investing on market-focus R&D.

Alibaba's marketing strategy also includes encouraging the trustworthy small business to thrive and fighting against massive counterfeit goods in China. Another context that accelerates the emergence of e-commerce in China is the heavy corporate tax. Many small businesses are suppressed by the tax and move to the Internet. Alibaba uses the data of sellers on its platform to retrieve information and provides small loans to those trustworthy sellers who cannot get loans from banks. To reduce the amount of fake goods sold in its website, Alibaba becomes the most active Chinese company that fight against massive counterfeit goods in China.

Alibaba is a classic example of how company uses contextual innovation to gain and sustain competitive advantage. The company gains a sustainable competitive advantage in the Chinese e-commerce market. Taobao and Tmall are two e-commerce websites of Alibaba. In 2012, the combined transaction volume of Taobao and Tmall is larger than the totals of Amazon and eBay combined, making Alibaba the largest e-commerce company in the world (Osawa, 2014). McKinsey predicts Alibaba will become one of the most valuable companies in the world within five years (The world's greatest bazaar.2013). The prediction of Alibaba's IPO is that it probably breaks the record or as much high as Facebook's IPO.

BAIDU

Baidu is an online search engine company in China. The context of Chinese search engine market is it lacks a systematic and accurate search tool of Chinese language

and with the emergence of social media, Internet users will reduce their time spend on using search engine. Even Google, the most widely used search engine around the world can only generate relatively random search results of Chinese language. Also, with the emergence of social media such as blog, microblog and social networking site, people will reduce their time spend on search engine (Chiu, Ip, & Silverman, 2012).

To fill the void of a specialized Chinese language search engine service and face the threat of the emergence of social media, Baidu invested heavily on market-focus R&D. According to Chinese Champion, a survey of patent and intellectual property rights, in 2009 Baidu spent 68 million U.S. dollars on R&D. Just three years later, in 2012, it spent 370 million on R&D. In 2010, Baidu had 120 applications for patent and utility models all over the world. It has established R&D centers in Shanghai, Shenzhen, California and Singapore.

Baidu's business model is built on its specialization on Chinese language and incorporates social media service into its existing business model. According to Baidu's official website, the company thinks its core competency lies on its deep understanding of Chinese language and culture. For example, Baidu finds there are 38 ways of saying "I" in the Chinese language. Unlike Google generates random results, when someone uses its Chinese language services, Baidu gives more systematic and accurate results of the Chinese language search. Baidu's business model innovation is even ahead Google's. Baidu put the paid search results at the top of its website several months before Google did.

Baidu also creates a new business model for online search engine service, combining search engine with social media. It makes its search website become an

entrance of an online community. It integrates several social media components into its service. This dramatically increases Baidu's user-base and makes it more attractive for putting advertisement. This adapts to the context of Chinese Internet, which is more entertainment-oriented than information-oriented due to the majority of the population is young people (Kuo, 2009).

According to Baidu's official websites, the company has 64 products in total. The major products include Post Bar, Knows, and Encyclopedia. These three social media products gigantically increase the users of Baidu. Baidu Post Bar is the largest Chinese online community. Users enter or create the bar by typing a keyword through Baidu's search engine website. The topic discussed in the post bar is the keyword. It satisfies Chinese young Internet users' particular interest in some personal topics. For example, if you are a fan of LeBron James, you can go to the LeBron James's post bar and communicate with other fans. Baidu knows and Baidu encyclopedia's Western counterparts are Ask.com and Wikipedia. Unlike Ask.com, Baidu knows is completely Chinese language based and many questions asked in it are required a solid Chinese background, such as questions related to Chinese ancient history, literature and religion. Baidu even has a specialized search engine service that focus on classic Chinese language and literature search. Unlike Wikipedia is a scholarly encyclopedia that is available in several languages, Baidu encyclopedia is majorly used by companies and celebrity and completely Chinese language based. Baidu encyclopedia is most used for fans to create a profile for their idols and companies to create a profile for their own. It more likes a marketing tool. Companies and celebrities update their information by editing their profile in Baidu encyclopedia. The product is a mixed of encyclopedia, dictionary and

marketing tool.

Baidu's business model is an adaptation to the Chinese context, as it benefits from its specialization on Chinese language and the fact that Chinese Internet users are disproportionately young. Many people think emergence of social media is a threat of traditional search engine. People will probably spend more time on social media than search engine. Baidu deals with this challenge by horizontal integration. It integrates social media service into its existing business model and takes advantage of its existing large user base, benefits from economies of scale and scope. Its main search website becomes an entrance to several social media service and now there are more users in Baidu's social media service than in its search engine service. Recently, Baidu even developed an online socialization service that makes users access to social media from other companies more easily. It also develops a "box computing" system that allows mobile users use Apps through its search results website without downloading Apps.

The market-focus R&D also leads to Baidu's effective marketing strategy. Baidu uses a special marketing strategy called content marketing. When you search something through Baidu's search website, the top results are from Baidu's own social media products. It guarantees Baidu have more users and can charge more fees from advertisement. Unlike using Google, the top results are usually from Wikipedia and Yahoo Answers.

According to Oxford Online Institute, Baidu is the most widely used website in China and South Korea. Even when Google was in Mainland China, Baidu enjoyed roughly 70 percent of market share. The competitive advantage of Baidu over Google is its specialization on Chinese language online search and a business model that target

Chinese young Internet users, the majority of Chinese Internet population. As Robin Li, the CEO of Baidu once said to Wharton School that the competitive advantage of Baidu is that Baidu is a user-centric rather than technology-centric company. The increasing users of Baidu make it more attractive for merchants to put advertisement on it. The company gains a sustainable competitive advantage in Chinese search engine market.

RENREN

Renren is a major social networking site in China. It is most widely used by Chinese college students. Renren demonstrates a simple duplication of U.S. counterpart without business model innovation cannot guarantee the success in a different context. It was founded in 2005, which is a relatively young company compared to other companies in the case studies. It started as Xiaonei, which means “inside school” in Chinese, and then it changed its name as Renren, which means “everyone” in Chinese, demonstrating the company’s ambition to make it becomes a social networking site for everyone. However, Renren does not have enough R&D investment to make the business model innovation. In 2012, Renren’s R&D investment is only 20% of Baidu’s. The annual and quarterly net income of the company remains negative.

Its first mover advantage without technological superiority in Chinese online social networking markets was eroded when competitors from other sectors of Internet industry entered in social networking markets. It was born as a social networking sites limits the kinds of service the company can provide and makes it cannot benefit from economies of scope. It also lacks the innovation on business model. The function and design of Renren is very similar with Facebook. Almost, every time when Facebook

created a new function, Renren will add similar function in its website. Now, the company tries to make money from online games and e-commerce while the domination of other incumbent companies makes Renren difficult to survive.

However, Renren possesses several potentials of future success. According to a survey from Neilson, the company already has more than 194 million users and 64% of them are under age 29. The company is going to modify its current business model. It plans to build a Chinese youth community that emphasizes presenting a positive image of young people (Cao, 2014). It creates value for the society since most Chinese youths are the single child of their family and cultivated in an exam-oriented education system, most traditional media portrait them a negative image as selfish and nerdy. Chinese young people lack the access to express their own opinion.

As users use their real name in the platform, the information from Renren has more credentials. Unlike Facebook whose users' friends are evenly distributed in different age groups, users use Renren to connect with their peers. Renren want to make its website transformed into a combination of social media and e-commerce. The peer discussion in Renren is extremely value for brand. If users discuss the brand among their friends, this discussion is more valuable than a simple advertisement since it contains more credential (Cao, 2014). Also, when this young people get older, their purchasing power will definitely increase. Renren can charge them in the future.

SINA

Sina began its business as one of the largest web portals in China, but now it is famous for its social media product: Weibo, which means microblog in Chinese, an

equivalent of Twitter in the United States. It faces the same challenge as Baidu. The emergence of social media could reduce the time people spend on web portals (Chiu et al., 2012).

To face the challenge, Sina invest more on market-focus R&D. From 2010 to 2013, the company continually increases its spending on R&D. The annual net income has changed from negative to positive. This leads to the company's successful business model innovation and more effective marketing strategy.

Sina incorporated social media into its existing web portal business model. Sina successfully exploited the potential business models of social media, making its product portable, personalized and participatory (Bryfonski, 2012). Sina constantly researches the market and modifies its product and business model rapidly to meet the dynamic environment of the market (Gupta, 2013). It also binds the social good with its strategic planning to reduce the risk of introducing new product. Many tools in the Weibo are more advanced than its Western counterparts. Chinese users enjoyed multimedia functions in social media 18 months before Twitter users could do so in the United States (Chiu et al., 2012).

The concision of Chinese language also makes Weibo becomes popular in China (Crampton, 2011). For instance, twitter allows a maximum of 140 characters to post, which is pretty short in English and that is the reason why people complain twitter creates buzz. However, in Chinese, every character is a word. It makes short post can also contain much useful information. For example, if you post 'I felt so depressed' in Twitter is 16 letters. In Chinese, it is translated as “我很烦” (Wo Hen Fan), which is three characters in total. The concision of Chinese language makes Weibo becomes an

effective tool to communicate.

Weibo also adapts to the current social condition in China. Since most information is pre-filtered by the state owned traditional media, Chinese needs a way to get useful information (Crampton, 2011). The collective online expression through Weibo led by civic microbloggers becomes extremely popular in China and makes the authoritarian state have to adapt to it (A giant cage.2013). The social condition in the Chinese context makes Weibo plays several roles in people's everyday life. Weibo acts as a way of entertainment but also a substitute for the absence of independent judiciary in China (Liu, 2012). On the one hand, the state uses it to implement social control. On the other hand, the Internet users use it as a way of free speech.

The market-focus R&D also leads to a more effective marketing strategy. As the Internet environment in China is more entertainment-oriented, it is crucial for social media companies to recruit celebrities to use their products. Sina's web portal is famous for its entertainment news and when the company incorporates Weibo into its existing business model, it has a cumulative advantage. The company successfully recruited several celebrities to use Weibo and makes it popular among Chinese youth.

Sina gains a sustainable competitive advantage. Now, Sina Weibo, separately from Sina Group, files 500 million U.S. dollars IPO, which creates gigantic profit for the company. Weibo produces a balance between freedom and stability, making the Chinese cyberspace healthy (Yeo & Li, 2012). It helps Chinese society maintain stability during the rapid social and economic change. This success is backed by Sina's deep understanding of Chinese context and its sophisticated skills in dealing with its users and the government. Sina Weibo now is the most popular social media in China with more

than 700 million users.

TENCENT

Tencent is an Internet company whose services are on web portal, social media, instant messaging and online gaming. As mentioned above, the context of Chinese Internet market is the majority is young people, more entertainment oriented and these consumers have very limited purchasing power.

Like other successful companies, Tencent invests heavily on market-focus R&D. According to Chinese Champion, a survey of patent and intellectual property rights, the company invested 16 million in 2007 to develop first Chinese Internet Research Institute. More than 50% of Tencent's employee works on R&D division. It also purchased several online game companies from South Korea to strength its capability on R&D. The market-focus R&D strategy leads to business model innovation and a more effective marketing strategy.

Tencent's success lies on its business model innovation that fits the Chinese context. Unlike Sina, Baidu, Google and Facebook whose more than 80% of revenue comes from advertising, more than 80% of Tencent's revenue comes from value added services (Tencent's worth.2013). The value added business model is used in the company's instant messaging, online gaming and social media service.

Usually, Internet firms attract consumers by their services, such as search results and social media. Then, they sell advertisement through their website and make most of their profits from advertising. However, Tencent uses a totally different business model. It takes advantage of the entertainment-oriented characteristics of Chinese Internet

market. It first gives their users free online games. After the users hooked up, the company begins to charge small fees for value added service, such as fancy weapons, snazzy customs and VIP online rooms (Tencent's worth.2013). This business model also adapts to the economic condition of Chinese Internet users: large quantity but with very limited purchasing power.

Tencent also incorporated social media into its existing business model. Tencent's recent innovation is Wechat, a mobile messaging service similar to WhatsApp. However, Wechat uses a different business model compared to WhatsApp's. The company integrates online mobile payment function and online games to Wechat (Nice little earner.2014). It is a mixed business model that combines the company's existing value-added business model with the similar functions of WhatsApp. Also, it takes advantage of the inefficiency of the banking system. The main revenue from Wechat is from value added value services, like its revenue from other sector of the company's service. While, the main revenue for WhatsApp is from advertisement and the charge of 99 cents after first year of service (Back, 2014).

Wechat's business model is also an adaptation to Chinese context. The online game functions adapt to the entertainment-oriented market condition of Chinese young Internet users. The mobile payment function overcomes the inefficiency of Chinese banking system. For example, in China, every time using a credit card requires the holders to enter the PIN and cost a transaction fee. While, using Wechat's wealth management after users first bind their credit cards with their Wechat account, they do not need to enter the PIN again and cost no transaction fee when they are purchasing. Also, China overtakes the United States as the largest market of smartphone. Wechat will

also benefit from the rapid growing number of Chinese smartphone users.

The market-focus R&D also leads to more effective marketing strategy. The most cost saving and effective marketing strategy of the company is it connects users' QQ account with Wechat account. QQ is the most widely used online instant messaging service in China with roughly 800 million users and Tencent's most renowned product. The connection makes QQ users directly transfer into Wechat and helped it gain a large user base when the product was just introduced.

Wechat's business model connects people's cyber life with real life by introducing the function of wealth management. It creates a new ecosystem of how e-commerce works. It substitutes the inefficient traditional banking system. It also substitutes the expensive traditional mobile service that owned by monopolistic state-owned company, providing cheap and customer oriented service for people. Wechat's market is now expanding to Southeast Asia, Russia and India. The company gains a sustainable competitive advantage. Now, Tencent is the largest Internet company in China and the fifth largest Internet company in the world. According to Boston Consulting Group, Tencent had the largest shareholder total return globally, outcompeting Amazon and Apple (Tencent's worth.2013).

HYPOTHESIS TESTING

METHODOLOGY

To test the hypothesis from the theoretical framework part, I select 8 Chinese social media companies. The data is collected from the companies' financial reports from Google Finance. The latest available data is from the financial reports from 2009 to 2012.

It is 32 samples in total. To compare, I also select 8 U.S. Internet companies according to same criterion. The latest available data is from the financial reports from 2010 to 2013. 4 out of 8 these Chinese social media companies' financial report is measured in Chinese Yuan, so I converted the data into U.S. dollars by using the official exchange rate of Reminbi in the given year. The unit is 1 million U. S. dollars.

As mentioned in the theoretical framework, the competitive advantage of the company is conceptualized as the profit earnings of the company over other companies in the social media industry. In this case, the competitive advantage of a company is operationalized financially as the annual net income of the company. The R&D investment is operationalized as the annual R&D spending of the company. The non-production cost is operationalized as the annual SG&A (Selling, General and Administrative Expense) spending, a major type of non-production cost of the company. The age of the company is operationalized as the years since the company founded.

There exists a correlation between age of the company and R&D investment of the company, so I create a new variable: R&D*Year, the product of variable R&D and variable Year. R&D*Year is a mediator variable that uses to clarify the causal relationship between dependent variable (Net Income) and independent variables (R&D, Year). I use a linear model to regress it. The variables include R&D, SG&A, Year, and R&D*Year. The model is as follows.

$$\text{Net Income} = \beta_0 + \beta_1 (\text{R\&D*Year}) + \beta_2 (\text{R\&D}) + \beta_3 (\text{SG\&A}) + \beta_4 (\text{Year})$$

HYPOTHESIS

Hypothesis 1: The R&D of Chinese social media companies is more positively correlated with the Net Income than the R&D of U.S. social media companies is.

A market-focus R&D strategy creates more returns for a company compared with using a technology-focus R&D strategy. Since we assume Chinese social media companies use a market-focus R&D strategy and U.S. social media companies use a technology-focus R&D strategy, the annual R&D investment of Chinese social media companies should be more positively correlated with the annual net income of the company than the annual R&D investment of U.S. social media companies does.

Hypothesis 2: The SG&A of Chinese social media companies is more positively correlated with the Net Income than the SG&A of U.S. social media companies is.

A market-focus R&D strategy reduces the non-production cost for company compared with using a technology-focus R&D strategy. Since we assume Chinese social media companies use a market-focus R&D strategy and U.S. social media companies use a technology-focus R&D strategy, the non-production cost of Chinese social media companies should be more positively correlated with the annual net income of the company than the annual non-production cost of U.S. social media companies does.

RESULTS

| Variables \ Coefficients | Chinese Social Media Companies | U.S. Social Media Companies |
|--------------------------|--------------------------------|-----------------------------|
| Intercept | -123.3921 | -1,612.56045 |
| R&D * Year | -0.03736 | 0.30187 |
| R&D | 8.58139 | 6.31437 |
| SG&A | -4.23301 | -6.49591 |
| Year | 30.10168 | 462.49305 |

The results are described in the table above. All testing results are statistically significant at 2% level and fail to reject the H_0 . For Chinese social media companies, the coefficient of variable R&D is 36% larger than the coefficient of variable R&D from U.S. social media companies and both coefficients are positive, so Hypothesis 1 is supported. A market-focus R&D strategy does create business model innovation and generate more returns of R&D for the company. Also, for Chinese social media companies, the coefficient of variable SG&A is 35% larger than the coefficient of SG&A of U.S. social media companies does, and both coefficients are negative. In other words, the SG&A of Chinese social media companies has a more positive correlation with Net Income than the SG&A of U.S. social media companies does, so Hypothesis 2 is supported. A market focus R&D strategy does generate a more effective marketing strategy and reduces the non-production cost.

ADDITIONAL FINDINGS

Both Chinese social media companies and U.S. social media companies' age is positively correlated with the net income of the company, indicating the liability of newness in both markets. However, U.S. social media companies benefit roughly 15 times more from their age than Chinese social media companies do. There is almost no

correlation between age and R&D in Chinese social media companies. There is a weak substitution effect between age and R&D in U.S. social media companies.

CONCLUSION

The contextual innovation is achieved by a market-focus R&D strategy that leads to business model innovation and more effective marketing strategy. The competitive advantage of a company is achieved by the market-focus R&D strategy that creates more value from business model innovation and reduces the non-production cost by a more effective marketing strategy. The results show using market-focus R&D strategy can create more returns on R&D and reduce non-production cost compared with using technology-focus R&D. However, technological innovation is a higher barrier to entry. It allows fewer competitors enter in the market, so the monopolistic company seeks more economic rents. While, business model innovation is a lower barrier to entry. There are more competitors in the market and more companies share the profits.

The Chinese social media companies use a customer-centric strategy that studies the applications that close to market needs instead of inventions still far away from commercialization (Tan, 2011). The U.S. social media companies focus on inventing new technology that has disruptive forces, which can create a totally new market (Bower & Christensen, 1995). U.S. social media companies often disrupted existing industries while Chinese social media companies are more likely to fill a void, since the offline business is much more inefficient in China (An internet with chinese characteristics.2011). Different social structures create different organizations (March, 1965). The process of globalization expands the gene pool of innovation. The process of

contextual innovation is like the process of reproduction. It is the recombination of the existing genes and generates new combination of genes that is adaptive and incremental. The process of disruptive technological innovation is like the process of mutation. It creates new genes in the gene pool that could create new traits benefit reproductive success but mutation is often harmful.

The reason why U.S. companies are more benefit from their age is probably because old companies heavily invest in technology-focus R&D and disruptive technology creates a higher barrier to entry than business model innovation does. Old U.S. companies gain their monopoly status by their invention of new technology. It enables them to seek economic rents without further innovation on business model. On the contrary, old Chinese companies gain the monopoly status by constantly modify the business model, since in the context there is a lack of legal enforcement of intellectual property rights and also technological innovation is unprofitable. The competition occurs on business model rather than on technology is probably the reason why the Chinese online products have more functions than their U.S. counterparts and why there are more competitors in each sectors of Chinese Internet industry. To some extent, the competition in the Chinese Internet market is more intense than the competition in the U.S. Internet markets, so the Chinese Internet users benefit from the fierce competition. Most of the service is cheap or even free.

There are several indications for economic policy. For emerging economies, it is probably better to pursue a market-focus R&D strategy instead of a technology-focus R&D strategy, since the process of technological innovation arm race can generate red queen effect that trap the company in the process of developing new technology, which is

costly and risky. On the contrary, competition on other dimensions and taking advantages of the limitations of the large multinational corporation's global unified strategy might be a better chance to win. The success of companies from emerging economies might depend on the company's capability to exploit existing information to find the fundamental difference between the domestic market and global market to create a new business model. The products of these Chinese Internet companies are more similar with providing service than manufacturing goods. For the economic transition of China, when the country shifts from manufacturing to service sector, it might also pay attention to exploit existing information to find the unique taste of Chinese consumers to outcompete its global competitors.

Economist Joseph Schumpeter uses "creative destruction" to describe how innovation creates destructive force that shapes the development of capitalism (Schumpeter, 1994). Even, the contextual innovation, an incremental and adaptive process can generate destructive forces that transform the economy.

There are several limitations in this research. This research does not consider the heterogeneity of the industry. Different industry should adopt different R&D strategy. Also, there may be omitted variable bias in the linear regression. A much larger sample size and more advanced mathematic model could definitely improve the results of this research. Also, the different performance of Chinese companies and U.S. companies is not solely determined by the R&D strategy of the company. Several factors, such as governmental policy and corporate culture could also impact the performance of the company. More empirical evidence should be presented to support the findings of this research.

APPENDIX

Distance Between United States and China

| Countries | China | United States |
|---------------------------------------|--|---|
| Cultural Distance | Language: Mostly Used: Mandarin and Cantonese, with more than 80 widely used dialects. Cultural heritage/Religion: Confucianism, Taoism and Mahayana Buddhism Ethnicity/Race: 56 nationalities. Majority: Han Chinese, 55 minorities | Language: Mostly Used: English, Spanish, 337 languages total Cultural heritage/Religion: Christianity Ethnicity/Race: White, Black, Asian, Hispanics, Native American |
| Political and Administrative Distance | Political Economic System: State Capitalism Political Ideology: Communism, Socialism Political Institution: Single-Party System | Political Economic System: Corporate Capitalism Political Ideology: Democracy Political Institution: Multi-Party System |
| Economic Distance | GDP per capital/Purchasing Power: \$ 6188 Population/Quantity Demand: 1,363,350,000 | GDP per capital/Purchasing Power: \$ 49,965 Population/Quantity Demand: 317,706,000 |

Companies Selected in Hypotheses Testing

| Chinese Companies | U.S. Companies |
|-------------------|----------------|
| Renren | Microsoft |
| Baidu | Yahoo |
| Sina | Google |
| Souhu | Facebook |
| NetEase | LinkedIn |
| Youku | Amazon |
| Ku6 | Twitter |
| Date/Jiayuan | EBay |

Linear Regression Results for Chinese Social Media Companies

| Linear Regression | | | | | | | |
|---|---------------------|-----------------------|---------------|------------|----------------|----------------|--------------------------|
| Regression Statistics | | | | | | | |
| <i>R</i> | 0.86135 | | | | | | |
| <i>R Square</i> | 0.74192 | | | | | | |
| <i>Adjusted R Square</i> | 0.70369 | | | | | | |
| <i>Standard Error</i> | 209.92199 | | | | | | |
| <i>Total Number Of Cases</i> | 32 | | | | | | |
| Net Income = - 123.3921 - 0.0374 * R&D*Year + 8.5814 * R&D - 4.2330 * SG&A + 30.1017 * Year | | | | | | | |
| ANOVA | | | | | | | |
| | <i>d.f.</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-level</i> | | |
| <i>Regression</i> | 4. | 3,420,480.73157 | 855,120.18289 | 19.40489 | 0. | | |
| <i>Residual</i> | 27. | 1,189,815.52463 | 44,067.24165 | | | | |
| <i>Total</i> | 31. | 4,610,296.2562 | | | | | |
| | | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>LCL</i> | <i>UCL</i> | <i>t Stat</i> | <i>p-level</i> | <i>H0 (2%) rejected?</i> |
| Intercept | - 123.3921 | 128.24901 | -440.50829 | 193.72409 | - 0.96213 | 0.34452 | No |
| R&D*Year | -0.03736 | 0.30247 | -0.78527 | 0.71055 | - 0.12351 | 0.90262 | No |
| R&D | 8.58139 | 4.65754 | -2.93512 | 20.09791 | 1.84247 | 0.07641 | No |
| SG&A | -4.23301 | 2.15694 | -9.56639 | 1.10037 | - 1.96251 | 0.06008 | No |
| Year | 30.10168 | 23.61359 | -28.28669 | 88.49005 | 1.27476 | 0.21326 | No |

Linear Regression Results for U.S. Social Media Companies

| Linear Regression | | | | | | | |
|---|---------------------|-----------------------|--------------------|--------------|----------------|----------------|---------------------------|
| Regression Statistics | | | | | | | |
| <i>R</i> | 0.67649 | | | | | | |
| <i>R Square</i> | 0.45764 | | | | | | |
| <i>Adjusted R Square</i> | 0.37729 | | | | | | |
| <i>Standard Error</i> | 23,683.36717 | | | | | | |
| <i>Total Number Of Cases</i> | 32 | | | | | | |
| Net Income = - 1612.5604 + 0.3019 * R&D*Year + 6.3144 * R&D - 6.4959 * SG&A + 462.4931 * Year | | | | | | | |
| ANOVA | | | | | | | |
| | <i>d.f.</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-level</i> | | |
| <i>Regression</i> | 4. | 1.27786E+10 | 3,194,647,865.9666 | 5.69556 | 0.00186 | | |
| <i>Residual</i> | 27. | 1.51444E+10 | 560,901,880.33691 | | | | |
| <i>Total</i> | 31. | 2.79229E+10 | | | | | |
| | | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>LCL</i> | <i>UCL</i> | <i>t Stat</i> | <i>p-level</i> | <i>H0 (2%) rejected ?</i> |
| Intercept | - 1,612.56045 | 13,573.12585 | -35,174.28463 | 31,949.16373 | - 0.11881 | 0.90631 | No |
| R&D*Year | 0.30187 | 0.1387 | -0.04108 | 0.64482 | 2.17648 | 0.03844 | No |
| R&D | 6.31437 | 7.27882 | -11.68367 | 24.31242 | 0.8675 | 0.39331 | No |
| SG&A | -6.49591 | 4.77041 | -18.2915 | 5.29968 | - 1.36171 | 0.18454 | No |
| Year | 462.49305 | 1,245.9846 | -2,618.40312 | 3,543.38922 | 0.37119 | 0.7134 | No |

References

- Abrami, R. M., Kirby, W. C., & McFarlan, F. W. (2014). Why china can't innovate. *Harvard Business Review*, 92(3), 107-111.
- Back, A. (2014). WhatsApp is down for china messaging. *Wall Street Journal - Eastern Edition*, 263(42), C8-C8.
- Barnett, W. P. (2008). *The red queen among organizations : How competitiveness evolves*. Princeton: Princeton University Press.
- Barnett, W. P., Luo, X., & Feng, M. (2010). *Taobao VS. EbAY china*. (Unpublished Cases). Graduate School of Business, Stanford University,
- Barrett, C. W., Peet, V. B., & Musso, C. (2011). R&D strategies in emerging economies: Results from the mckinsey global survey. *Research Technology Management*, 54(4)
- Bower, J. L., & Christensen, C. M. (1995). Disruptive technologies: Catching the wave. *Harvard Business Review*, 73(1), 43-53.
- Breznitz, D., & Murphree, M. (2011). *Run of the red queen : Government, innovation, globalization, and economic growth in china*. New Haven [Conn.]: Yale University Press.
- Bryfonski, D. (2012). *The global impact of social media*. Detroit, MI: Greenhaven Press.
- Cao, M. (2014). China revealed: Renren - youth secrets unlocked. *Campaign Asia-Pacific*, 1-1.
- Carroll, G. R. (1984). Organizational ecology. *Annual Review of Sociology*, 10, 71-93.
- Chesbrough, H. (2007). Business model innovation: It's not just about technology anymore. *Strategy & Leadership*, 35(6), 12-17.
- Chiu, C., Ip, C., & Silverman, A. (2012). Understanding social media in china. *McKinsey Quarterly*, (2), 78-81.
- Cohen, W. M., & Levinthal, D. A. (1989). Innovation and learning: The two faces of R & D. *The Economic Journal*, 99(397), 569-596.
- Crampton, T. (2011). Social media in china: The same, but different. *China Business Review*, 38(1), 28-31.
- Damanpour, F., Szabat, K. A., & Evan, W. M. (1989). The relationship between types of innovation and organizational performance. *Journal of Management Studies*, 26(6)

- Freeman, J., Carroll, G. R., & Hannan, M. T. (1983). The liability of newness: Age dependence in organizational death rates. *American Sociological Review*, 48(5)
- Ghemawat, P. (2001). Distance still matters. the hard reality of global expansion. *Harvard Business Review*, 79(8), 137-40.
- A giant cage. (2013, 04/06). *Economist*, 407, 1-5.
- Gupta, A. (2013). Adaptive innovation: Create, learn, repeat. *Rotman Magazine*, , 97-100.
- Haour, G., & Jolly, D. (2014). China: The next innovation hot spot for the world. *Journal of Business Strategy*, 35(1), 2-8.
- An internet with chinese characteristics. (2011, 07/30). *Economist*, 399, 71-72.
- Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, 86(12)
- Kuo, K. (2009). Blogs, bulletin boards, and business. *China Business Review*, 36(1), 28-31.
- Liu, L. (2012). Check out sina weibo. *FinanceAsia*, , 48-49.
- Luo, Y., Sun, J., & Lu Wang, S. (2011). *Emerging economy copycats: Capability, environment, and strategy* Academy of Management.
doi:10.5465/AMP.2011.61020801
- March, J. G. (Ed.). (1965). *Handbook of organizations*. Chicago: Rand McNally.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87.
- Morse, G. (2010). Health care needs a new kind of hero. *Harvard Business Review*, 88(4), 60-61.
- Nice little earner. (2014). *Economist*, 410(8870), 46-46.
- Osawa, J. (2014, Mar 17, 2014). Meet alibaba: China's mix of amazon, eBay and PayPal. *Wall Street Journal*, pp. B.1.
- Ou, X., Carol, & Davison, R. M. (2009). Why eBay lost to TaoBao in china: The global advantage. *Communications of the ACM*, 52(1), 145-148.
- Parmar, R., Mackenzie, I., Cohn, D., & Gann, D. (2014). The new patterns of innovation: How to use data to drive growth. *Harvard Business Review*, 92(1-2), 1-2.

- Pisano, G. P. (2012). *Creating an R&D strategy*. (Unpublished Working Paper). Harvard Business School, (74714986)
- Robson, A. J. (2005). Complex evolutionary systems and the red queen. *The Economic Journal*, 115(504), F211-F224.
- Ronen, S., & Shenkar, O. (2013). Mapping world cultures: Cluster formation, sources and implications. *Journal of International Business Studies*, 44(9), 867-897.
- Schumpeter, J. A. (1994). Capitalism, socialism, and democracy.
- Shenkar, O. (2010). *Copycats : How smart companies use imitation to gain a strategic edge*. Boston, Mass.: Harvard Business Press.
- Sørensen, J. B., & Stuart, T. E. (2000). Aging, obsolescence, and organizational innovation. *Administrative Science Quarterly*, 45(1), 81-112.
- Tan, Y. (2011). *Chinnovation : How chinese innovators are changing the world*. Hoboken, N.J.; Chichester: Wiley ; John Wiley.
- Tencent's worth. (2013). *Economist*, 408(8854), 66-68.
- Voelpel, S., Leibold, M., Tekie, E., & Krogh, G. V. (2005). Escaping the red queen effect in competitive strategy: Sense-testing business models. *European Management Journal*, 23(1), 37-49.
- The world's greatest bazaar. (2013, 03/23). *Economist*, 406, 27-30.
- Yeo, G., & Li, E. X. (2012). Yin and yang: Sina weibo and the chinese state. *NPQ: New Perspectives Quarterly*, 29(2), 7-9. doi:10.1111/j.1540-5842.2012.01307.x

Comparative Analysis of Social Media Companies in China and the United States

Introduction

In the first part of my thesis, I discussed the business model innovation and R&D strategy of Chinese social media companies. In this paper, I discuss the products and services of Chinese and U.S. social media companies and analyze how the business model of these products and services adapts to the different environment in China and the United States.

Taobao VS EBay

Taobao, belongs to the Alibaba Group, is the largest e-commerce website in China and has become the largest e-commerce website in the world by volume of transaction since 2013 (Osawa, 2014). EBay is a pioneering online-auction website in the United States and one of the world leaders in e-commerce.

Taobao and EBay have similar but different business models. The difference lies on several aspects, including the design of the website, source of revenue, feedback service and payment system.

The design of Taobao's platform is given much reference to Chinese culture and differentiates itself from other e-commerce websites. Alibaba emphasizes the collectivist aspect of Chinese culture, making strong connections among each user of the website. Each member of the administration team is given a nickname from famous Chinese Kung Fu novels, which gives an informal attitude to users and makes them feel welcomed in the community. Taobao's colors are red and orange, which symbolize festivity and prosperity in Chinese culture (Hatoum, 2014). The website also is embedded with lots of

other information in its design. Compared with Westerners, Chinese gets used to website to be noisy with lots of other links because the real life in China is a noisy, collective, moving and colorful environment (Hatoum, 2014). On the contrary, the design of EBay's website is simple and sparse. It just lists items in each category and gives customers direct information without symbolic meanings as Taobao does. This adapts to the U.S. Internet users preference for sparse and simple design of website.

The source of revenue is different for Taobao and Ebay. Taobao is free for listing and selling items. Its revenue comes from selling advertisement to sellers on its website. While, EBay's revenue comes from listing fees and transaction fees, from 1.5% to 5% of final sale price. These two business models adapt to the different context of China and the United States. The age groups of Internet users are evenly distributed in the United States and Internet users consists more than 80% of U.S. population. There is no such a big difference between the online consumers and offline consumers in the United States.

However, the situation is different in China. According to a survey from Taobao, more than 70% of its buyers are under age 35. It indicates Taobao's buyers are young with limited purchasing power. The items they purchase are cheap and the transaction fee that could be charged from final sale price is tiny. Compared with charging transaction fees, a free service could ensure a large user base and it definitely can attract sellers to the site. Taobao monetizes by taking advantage of its gigantic user base. There are more than seven million sellers on Taobao to compete for over 30 million buyers. To stand out, sellers need to buy the advertisement (The world's greatest bazaar.2013). For Taobao, it is important to ensure there is a gigantic quantity of users, since the large user base is

attractive for purchasing advertisement. Also, the expectations are the number and purchasing power of Chinese Internet users will continue growing. The expected increase of revenue could come from the increasing number of Chinese Internet users and their purchasing power.

EBay is an auction website while most price is fixed at Taobao. At EBay, each transaction is important, since transaction only occurs between the final bidder and the seller. Charging a transaction fee becomes reasonable, since buyers benefit from the auction process. The buyers can calculate how much they benefit from this transaction and can compare it with the transaction fees they pay. The value of EBay lies on that it provides a place for buyers and sellers to negotiate directly, so EBay charges fees for the bargaining process between buyers and sellers. EBay's business model helps its users to personalize each transaction and find the exact willingness to pay of consumers, thus producing more social welfare. While, the value of Taobao lies on its function like a search engine. It helps buyers find the cheapest price from millions of sellers and helps sellers to locate their products at the most popular market. Taobao's business model adapts to the context of Chinese Internet that there is a gigantic of population but the majority of the users are young and with limited purchasing power.

The feedback service is different in Taobao and Ebay. Taobao promotes the direct communication between sellers and buyers. AliWangWang is an online chatting function of Taobao that allows the direct communication between buyers and sellers (Ou & Davison, 2009). Taobao implemented this design probably because there is a lack of legal protection of online transaction in China and direct communication is a good way to reduce the risk of fraud. Also, in Chinese culture, people value the emotional bonds that

developed from direct communication (Hatoum, 2014). At Taobao, both buyers and sellers have rating systems and the reputation is important for both the sellers and the buyers, as indicated in the collective Chinese culture, which emphasizes the value of reciprocity.

While, in most cases, buyers and sellers from EBay can only communicate directly on through e-mail. Although they can post comments on EBay's online forum, they cannot directly interact with each other as Taobao's users do. It might be because the United States already has a well-established legal protection system of online transaction, so the risk of fraud is quite low and using email is convenient and sufficient enough for communication. Also, emotional bonds between sellers and buyers are not such that important in the United States as that in China. Sellers and buyers in the United States can just follow the established rules and procedures for each transaction. At EBay, only sellers have a rating system compared with buyers and sellers at Taobao both have rating systems, which indicates customer oriented U.S. business culture and sellers take most of the responsibility.

The payment system is different in Taobao and EBay. Although Alipay and Paypal share similar functions, the usage and popularity are quite different. China does not have an open and efficient payment system as the United States does. China UnionPay issues most credit cards and the number of credit card is limited (Alipay vs PayPal for mobile payments.2014). The processing system of bank is also different among different provinces in China and each transaction charges a fee. Also, Chinese culture emphasizes saving money instead of spending money you do not have. It further makes credit card unpopular. Alipay becomes a substitute for credit card in China.

Chinese use Alipay because most of them do not have credit card or seldom use credit card and Alipay provides secure service and charges no transaction fee.

While PayPal shares similar function as Alipay, most people use PayPal because the security PayPal provides. Most customers attach their bank account information to PayPal but still use their credit card to purchase. Also, compared with Alipay's free service, PayPal charges fee for selling and international transactions. Already having an advanced credit card system makes PayPal in the United States is not as popular as Alipay is in China.

Baidu VS Google

Baidu is the largest search engine company in China and has more than 80% of market share in Chinese search market. Google is the largest search engine company in the world and a pioneer of technological innovation. Baidu and Google's source of revenue both comes from selling advertisement but they achieve this from different business model that adapts to the context of search engine market in China and the United States.

Google provides free service on search engine, email, web explorer, and online uploading document. Relevant products include Gmail, Google Doc and Chrome. Google's business model is providing free service to attract a large amount of consumers and monetizing through selling advertisement on its search engine. Google gets information from the user of its products and sells the relevant advertisement to the company needs the information of users most. It is the revenue from selling the advertisement on the search engine website that finances Google to provide other free service without so many advertisements.

Baidu also provides free products to attract consumers, but the categories of the product are different. Google's products are more practical and information-oriented while Baidu's products are specifically designed for young people and more entertainment-oriented. Also, compared with Google just putting limited amount of advertisement on its other products to make the appearance simple and sparse, Baidu puts more advertisements on its other free service. As mentioned in last case study, Chinese gets used to website with lots of information due to their real life experience. Unlike Google's other free products are subsidiary of Google's search engine, Baidu's social media products plays a huge role in monetization and search engine is only one of its several important products. The monetization of Baidu evolves when consumers' preference changes toward its different categories of its products.

The goal of Google's search engine service is to provide the best quality search results while Baidu's search engine service is more like a gateway for different kinds of online entertainment.

Baidu's major products include social media, online games and video sharing. This adapts to context that the majority of Chinese Internet users are young. According to Statista, more than 60% of Chinese Internet users are under age 35. Free entertainment, such as online game attracts young people online. Also, young people are more inclined to interact with people by using social media and posting videos. Now, Baidu generates more revenue from its social media and video sharing products than from its search engine. While, in the United States, Internet users are evenly distributed in different age groups, so the free products, such as Gmail and Chrome, that Google provides are more

practical and general for all age groups. Also, the revenue of Google is disproportionately generated from selling advertisement from its search engine.

Also, the growth of Baidu's revenue might from the growth of the population of Chinese Internet users. According to Statista, the number of Internet users in China increased from 111 million in December 2005 to 632 million in June 2014. Compared with the rapid growth of Chinese Internet users, the number of U.S. Internet users is quite static.

Weibo VS Twitter

Weibo is a social media product from Sina Group, one of the largest web portals in China. Weibo shares several similar aspects with Twitter. They both attracts to young users. According to a survey from Sina Group, about 90% of Weibo's users are under age 35. Similarly, according to a survey from Beevolve, about 88.6% of Twitter's users are under age 35. Also, most of their users access their sites from mobile device. About 75% of Twitter users use mobile phone to access the site (Gadkari, 2014) and 76% of Weibo users use mobile phone to access the site. Although they both make most of the profits from selling advertisement, they achieve this through different business models in different context.

Selling advertisement is the single most important way for Twitter to make profit. Twitter makes about 85% of its revenue from advertising from its site (Gadkari, 2014). There are three ways that users can advertise through Twitter: promoting tweets on user's timeline, promoting an account and promoting a trend. Twitter charges fees from advertisement by counting the interaction the advertisement generates. The interaction among users on Twitter's site is simple and can be easily handled in a mobile device.

About 65% of Twitter's revenue in 2013 comes from mobile device (Gadkari, 2014). The business model of Twitter is to provide high quality user experience for its users and collect highly selective information from its users for advertising.

Unlike Twitter, selling advertisement is only a part of Weibo's revenue. Weibo directly put interactive and precise advertisement on its site unlike Twitter provides data for enterprise to analyze the market and advertise (Rapoza, 2011). Weibo's other revenue comes from instant search, paid content, e-commerce, social games and wireless value-added service (Rapoza, 2011). Compared with the simple function and usage of Twitter, Weibo is a more integrative and complex product (Rapoza, 2011). Weibo had the multimedia function several months before Twitter did (Chiu, Ip, & Silverman, 2012).

The diversity of Weibo's functions might design for its users with the strongest purchasing power. Although like Twitter most Weibo users access Weibo through mobile devices, Weibo makes its most of the revenue from traditional website, only 22% of its revenue in 2013 comes from mobile device compared with Twitter's 65% of revenue from mobile device (Koh & Winkler, 2014). This probably due to the majority of Weibo's users are young people with limited purchasing power while Weibo users in middle and old age group with strongest purchasing power use the traditional website to access Weibo.

According to a survey from Sina, the users frequently use mobile devices to access Weibo are in the age group of 22 to 29. They are young people with limited purchasing power. The users with strongest purchasing power only counts 25% of total users are usually using the traditional website access Weibo. The large space of traditional website allows Weibo to incorporate the several functions on its site, using the

integrative function to make profit. While, most Twitter's users regardless of their purchasing power, tend to use mobile device to access Twitter. The narrow screen of mobile device makes Twitter's function is simple and clear.

The concision of Chinese language also makes Weibo functions differently with Twitter (Crampton, 2011). Twitter allows a maximum of 140 characters to post, which is pretty short in English and that is the reason why people complain twitter creates buzz. However, in Chinese, every character is a word. It makes short post can also contain much useful information. For example, if you post 'I felt so depressed' in Twitter is 16 letters. In Chinese, it is translated as “我很烦” (Wo Hen Fan), which is three characters in total. The concision of Chinese language makes Weibo becomes an effective tool to communicate. To some extent, Weibo post became as a substitute for text message and an effective way to save money. Twitter is a social media tends to offer short and quick interaction while Weibo is a social media that tends to substitute the traditional media because the Chinese language Weibo use allow the post on Weibo contains same amount of effective information as traditional media does.

The popularity of Weibo depends on the current social conditions of China. Since most information is pre-filtered by the state owned traditional media, Chinese needs a way to get useful and organic information (Crampton, 2011). The collective online expression through Weibo led by civic microbloggers becomes extremely popular in China and makes the authoritarian state have to adapt to it (A giant cage.2013). The social condition in the Chinese context makes Weibo plays several roles in people's everyday life. Weibo acts as a way of entertainment but also a substitute for the absence of independent judiciary in China (Liu, 2012). On the one hand, the state uses it to

implement social control. On the other hand, the Internet users use it as a way of free speech.

Weibo and Twitter also started their business differently. Twitter is a typical success model of U.S. Internet companies. The success lies on high technology, innovation and entrepreneurship, a typical Silicon Valley success in a free and mature market. While Weibo is a product of Sina Group, one of the largest web portals in China. The larger use base of Sina as a web portal makes Weibo start with a large user base. Sina's previous experience and resources also support Weibo and makes it stand out from other social media. The popularity of Weibo also depends on the acceptance of Chinese government. As one of the oldest Chinese Internet companies, Sina has experienced years of self-censoring and win the trust from Chinese government (Rapoza, 2011). Weibo's success is a typical story in China. In a less free but growing market, a company with large scale and governmental cooperation wins.

Wechat VS What's App

What's App is an instant message subscription service for smartphones and each user can send each other images, video, and audio media messages. Wechat is a Chinese counterpart of What's App belongs to the largest Chinese Internet company: Tencent. Although at first these two smartphone applications look exactly same, Wechat began to change its business model when it gradually adapted to the local market and then inherited similar business model as the other products of Tencent.

What's App and Wechat gained their user base differently. What's App appeared as an innovation of smartphone apps that takes advantage of the pricing of mobile carriers for the traditional SMS. Smartphone users usually purchased the data plan

and using instant message apps can save user's money for paying SMS. As the smartphone market is the biggest in the United States, when What's App was firstly introduced, it gained a large user base because of its convenience and saving. However, smartphone market is not that large in China. Although the number of smartphone users in China is gigantic, the number of users purchasing data plans is not that large as in the United States, since the service from state owned mobile carriers is expensive for most Chinese users.

Wechat gained its user base from QQ, the largest online instant message software service in China owned by Tencent. According from Tencent, QQ already has more than 800 million active users in August 2014. When Wechat was firstly introduced, Tencent allowed QQ users to attach their QQ account to Wechat account. It made Wechat have a large user base immediately. Most Wechat users are QQ users. It indicates most of them already have smartphones and use data plan and Tencent needs saves a lot of resources to find target consumers for Wechat. This strategy also creates network effects. Users chose to use Wechat not only because it provides free message service and save money for using SMS, but also, perhaps more importantly, the people they communicate through QQ also use Wechat. Tencent shifts the network from QQ to Wechat and everyone in the network benefits from using Wechat.

The difference on the business models of What's App and Wechat also lies on Wechat inherits the business model of Tencent's other products. Unlike Sina, Baidu, Google and Facebook whose more than 80% of revenue comes from advertising, more than 80% of Tencent's revenue comes from value added services (Tencent's worth.2013). Usually, Internet firms attract consumers by their services, such as search results and

social media. Then, they sell advertisement through their website and make most of their profits from advertising. However, Tencent uses a totally different business model. It takes advantage of the entertainment-oriented characteristics of Chinese Internet market. It first gives their users free service. After the users hooked up, the company begins to charge small fees for value added service, such as fancy weapons, snazzy customs and VIP online rooms (Tencent's worth.2013). This business model also adapts to the economic condition of Chinese Internet users: large quantity but with very limited purchasing power.

Wechat inherits Tencent's business model as a cumulative advantage. What's App offers message service free of advertisement, games and gimmicks while Wechat strives to be everything at once: a platform for chatting, shopping, gaming, and even banking (Kuo, 2014). The basic service Wechat provides is free but the Wechat monetizes through value added service. For example, in Chinese New Year, users can use Wechat sending virtual red packets of lucky money, which is a traditional way in China to celebrate Chinese New Year, to other Wechat users by spending a tiny fee (Beech, 2014). The value added business model of Tencent adapts to the Chinese environment, which consists of gigantic amount of users with limited purchasing power. While, the major revenues of What's App comes from the annual subscription fee of 1 dollars (Back, 2014). The motto of What's App from its founder is to provide high quality message service that is free of governmental censorship and free of advertisement. It adapts to the free market ideology in the United States and caters to the U.S. consumers' preference for simple and sparse design of website.

The popularity of Wechat also lies on it provides service that is valuable for users

with stronger purchasing power in China. Compared with other social media, the audio message service provides by Wechat, like What's App provides for users in the United States, is even more valuable for Chinese users. Typing is an annoying experience for Chinese, especially older age group, since typing Chinese you should first type the pronunciation from Mandarin, then select the character you need. Most Chinese gets used to speak the dialect in daily life and the pronunciation is different from Mandarin. Most times, it is a big difference between the dialect and Mandarin. Consequently, typing is time-consuming for Chinese smartphone users; especially those are not fluent in Mandarin (Ma, 2014). Mandarin was adopted as the official language in China in 1955, but it became real universalized after the economic reform in 1978, so most middle and old age group get used to speak local dialect and typing mandarin is annoying for them.

However, this group of users is usually with the stronger purchasing power among Chinese consumers. Most of them never use social media because they do not want to learn how to handle technology and how to type Mandarin. Wechat gives them an ideal choice. Using the audio message service is the same as use a mobile phone. Also, some of the consumers from middle and old age groups never use social media because they think social media makes them looks childish and violate their privacy. However, Tencent incorporates a special social media function in the Wechat. Only friends can look at the comment from the users. If you are not a friend with the user, you cannot access to the content when the user posts a comment on your friend's posts. It helps protect privacy and increases the intimacy between each interaction among friends. While in most other social media, every comment is public and to protect privacy, you need to block the entire account of others.

Conclusion

According to the case study above, I find social media companies do function differently in China and United States. The difference partially lies on the difference on the age group and purchasing power of consumers. Age groups are evenly distributed in the population of U.S. Internet users and there is no such a big difference between online and offline consumers. While, in China, the majority of the Internet users are young people with limited purchasing power and companies have to find a way to attract consumers with stronger purchasing power from older age group.

The difference also lies on the starting point of the company. The U.S. companies demonstrate a typical Silicon Valley success. The success lies on technological innovation and entrepreneurship. On the contrary, most their Chinese counterparts come from incumbent large and experienced Chinese Internet companies, which have cumulative advantage and get the acceptance from Chinese government.

Also, the cultural environment plays an important role in the business model. Sometimes, the social media has same function but behave differently in these two environments. For example, the concision of Chinese language makes Weibo become an effective tool to communicate compared with Twitter does. The audio message of Wechat attracts older age group Chinese consumers because the inconvenience to type Chinese. While, audio message is only a subsidiary function for What's App.

References

- Alipay vs PayPal for mobile payments. (2014). Retrieved from <http://www.onbille.com/info/alipay-vs-paypal-for-mobile-payments/>
- Back, A. (2014). WhatsApp is down for china messaging. *Wall Street Journal - Eastern Edition*, 263(42), C8-C8.
- Beech, H. (2014). What's all the fuss about WhatsApp? china's WeChat is a worthy rival. Retrieved from <http://time.com/8873/whats-all-the-fuss-about-whatsapp-chinas-wechat-is-a-worthy-rival/>
- Chiu, C., Ip, C., & Silverman, A. (2012). Understanding social media in china. *McKinsey Quarterly*, (2), 78-81.
- Crampton, T. (2011). Social media in china: The same, but different. *China Business Review*, 38(1), 28-31.
- Gadkari, P. (2014). How does twitter make money? Retrieved from <http://www.bbc.com/news/business-24397472>
- A giant cage. (2013, 04/06). *Economist*, 407, 1-5.
- Hatoum, L. (2014). Why taobao succeeds in china unlike eBay? Retrieved from <http://www.saos.biz/blog/why-taobao-succeeds-in-china-unlike-ebay/>
- Koh, Y., & Winkler, R. (2014). Sizing up weibo and twitter. Retrieved from <http://blogs.wsj.com/digits/2014/03/14/sizing-up-weibo-and-twitter/>

- Kuo, L. (2014). WeChat is nothing like WhatsApp—and that makes it even more valuable. Retrieved from <http://qz.com/179007/wechat-is-nothing-like-whatsapp-and-that-makes-it-even-more-valuable/>
- Liu, L. (2012). Check out sina weibo. *FinanceAsia*, , 48-49.
- Ma, R. (2014). More than messaging: Why you should stop Comparing WeChat to WhatsApp. Retrieved from <http://thenextweb.com/asia/2014/01/24/messaging-stop-comparing-wechat-whatsapp/1/>
- Osawa, J. (2014, Mar 17, 2014). Meet alibaba: China's mix of amazon, eBay and PayPal. *Wall Street Journal*, pp. B.1.
- Ou, X., Carol, & Davison, R. M. (2009). Why eBay lost to TaoBao in china: The global advantage. *Communications of the ACM*, 52(1), 145-148.
- Rapoza, K. (2011). China's weibos vs US's twitter:
And the winner is? Retrieved from <http://www.forbes.com/sites/kenrapoza/2011/05/17/chinas-weibos-vs-uss-twitter-and-the-winner-is/print/>
- Tencent's worth. (2013). *Economist*, 408(8854), 66-68.
- The world's greatest bazaar. (2013, 03/23). *Economist*, 406, 27-30.